

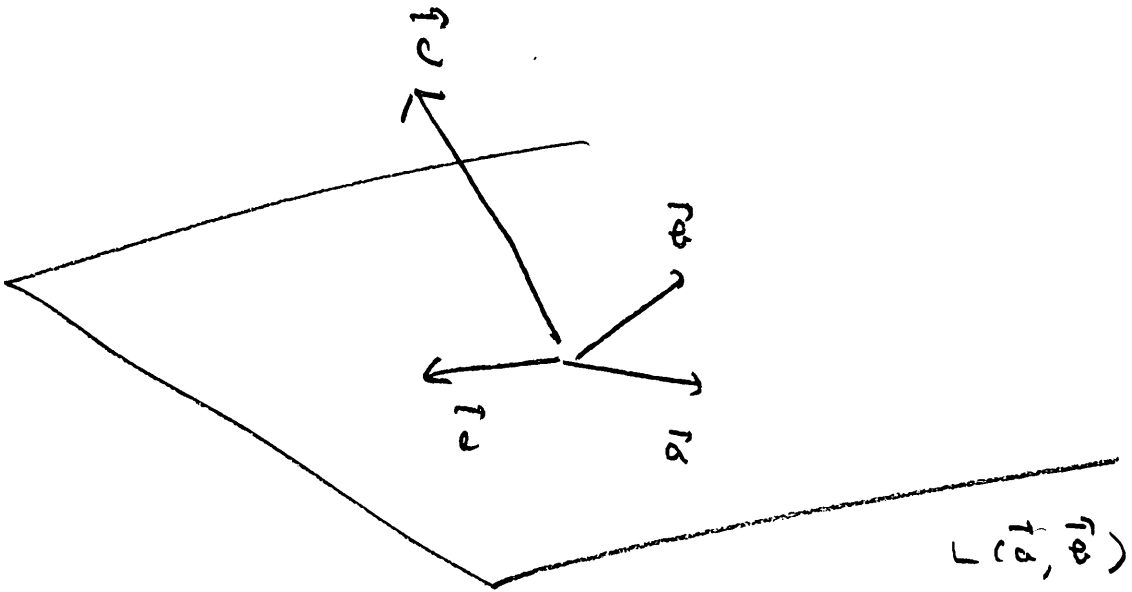
$\vec{a}, \vec{b}, \vec{c} \in \mathbb{R}^3$  எனில்.

$$\vec{a}, \vec{b}, \vec{c} \text{ LI} \iff \begin{cases} x\vec{a} + y\vec{b} + z\vec{c} = \vec{0} \\ \implies x=y=z=0 \end{cases}$$

தரவு  $\vec{a}, \vec{b}, \vec{c} \text{ LI} \implies \vec{a} \neq \vec{b}$

தரவு  $\vec{a} = \vec{b} \implies \vec{a}, \vec{b}, \vec{c} \text{ LI}$  இல்லை.

$$\left( \exists \begin{pmatrix} x \\ y \\ z \end{pmatrix} \neq \begin{pmatrix} 0 \\ 0 \\ 0 \end{pmatrix} \text{ such that } x\vec{a} + y\vec{b} + z\vec{c} = \vec{0} \right)$$



$\vec{c} \in L(\vec{a}, \vec{b}) \implies \vec{c} = x\vec{a} + y\vec{b}$

எனவே  $\vec{a}, \vec{b}, \vec{c}$  LI இல்லை.

தரவு 2  $\vec{c} \in L(\vec{a}, \vec{b}) \implies \vec{a}, \vec{b}, \vec{c} \text{ LI}$

தரவு 1  $\vec{a}, \vec{b}, \vec{c} \text{ LI} \implies \vec{c} \notin L(\vec{a}, \vec{b})$

தரவு  $\vec{a}, \vec{b}, \vec{c} \text{ LI} \implies \vec{a} \neq \vec{b}$  மற்றும்  $\vec{c} \notin L(\vec{a}, \vec{b})$

தரவு  $\implies$  உண்மை.